

Remarks

I. Status of the Application and Claims

As originally filed, the present application had a total of 16 claims. All of these were cancelled in previous prosecution and new claims 17-36 were added. Claims 17 and 24 have been amended herein.

II. The Amendments

Claims 17 and 24 were amended to specify that bacteria used in the production of amino acids contain a vector that encodes the zwf enzyme of SEQ ID NO:8 or SEQ ID NO:10 that is either maintained extrachromosomally or integrated into the bacterial genome. The Examiner suggests on page 4 of the Office Action that claims are enabled with respect to bacteria transformed with a nucleic acid encoding the zwf protein of SEQ ID NO:9 or SEQ ID NO:10. Applicants believe that the amendment that has been made is in compliance with this suggestion, but expresses limitations in terms of the state of the bacteria rather than in terms of a process. In other words, when a bacterium is transformed with a nucleic acid encoding a protein, a vector will be transferred into the bacterium and either be incorporated into its genome or be maintained as a distinct entity.

Claims have also been amended to indicate that bacteria include a poxB gene that includes an inactivating disruption. This amendment was also made in an attempt to comply with a suggestion of the Examiner appearing on page 4 of the Office Action. In this case, the Examiner indicates that claims are enabled for bacteria having an inactivating deletion of the poxB gene. The word “disruption,” rather than “deletion,” was used to indicate that gene activity can be eliminated not only by deleting sequences, but also by the integration of additional nucleotides, *e.g.*, nucleotides encoding a stop codon.

In addition to the amendments to the claims described above, the specification was amended to cross-reference additional applications that Applicants would like to claim priority to. Since the changes have come after the required time period, Applicants are

concurrently submitting a Petition Under 37 C.F.R. § 1.78(a)(3) to the Office of Petitions. (A copy of the petition is enclosed as Exhibit A.)

None of the amendments described above add new matter to the application, and their entry is therefore respectfully requested.

The Rejections

I. Rejection of Claims Under 35 U.S.C. § 112, First Paragraph

On pages 2-6 of the Office Action, the Examiner rejects claims 17-19 and 24-29 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The Examiner alleges that *Corynebacterium glutamicum* bacteria in which the activity of the *poxB* gene has been reduced or eliminated constitutes a large and variable genus. It is further argued that Applicants have not provided an adequate description or enabled this full genus.

Applicants respectfully disagree with the Examiner's characterization and believe that the term "genus" is being used inappropriately to refer to the process by which bacteria are made rather than the bacteria themselves. Nevertheless, in an effort to advance the prosecution of the present case, Applicants have amended claims 17 and 24 in a manner that they believe should be in accord with what the Examiner implies is patentable. Specifically, the claims are now limited to bacteria that have incorporated a vector encoding the *zwf* enzyme of either SEQ ID NO:8 or SEQ ID NO:10 and in which the *poxB* gene of SEQ ID NO:4 has been disrupted. In light of these amendments, Applicants believe that the Examiner's rejection has been overcome, and it is respectfully requested that this rejection be withdrawn.

II. Rejection of Claims Under 35 U.S.C. § 103

On pages 6-9 of the Office Action, the Examiner rejects claims 17-36 under 35 U.S.C. §103 as being unpatentable over the combination of Dunican, *et al.* (WO 01/004322, hereinafter the '322 reference) in view of Möckel, *et al.* (EP 1 096 013, hereinafter the '013

reference) and JP 09-244661 (hereinafter the '661 reference). The Examiner points out on page 8 that the '322 and '013 references were published after the filing date of Applicants' parent application (09/531,269), but alleges that the prior application does not support zwf genes encoding proteins of SEQ ID NOs:8 and 10.

In response, Applicants have filed a petition requesting that they be granted priority to a United States counterpart of the '322 reference, *i.e.*, the reference by Dunican (also an inventor named on the present application). In this regard, it should be noted that '322 claims priority to United States application 09/531,267, filed on March 20, 2000, and to United States provisional application 60/142,915, filed on July 9, 1999. The '267 application discloses all of the sequence information in the '322 reference and, in fact, appears to be essentially identical. To aid the Examiner in comparing the applications, Applicants are enclosing herewith a copy of the '267 application as Exhibit B.¹ Patent Office records should provide additional information with regard to filing date, inventorship, etc.

Applicants believe that all of the essential elements needed to claim priority are present. First, the present application and '267 have at least one inventor in common. Although the '267 application was eventually abandoned,² at the time that the present application was filed, *i.e.*, March 6, 2002, '267 was still active and, therefore, the requirement of co-pendency at the time of filing was met.

The only other requirement for Applicants to claim priority is that a statement must appear in the present application requesting such priority and stating the relationship of the applications. This was not in the present application as filed or submitted within the time frame required by the patent rules. However, 37 C.F.R. § 1.78(a)(3) provides that an applicant may request priority after the required time period, provided that: a) the application is amended to properly cite the application relied upon for priority; b) the requirements of continuity are met; c) a petition is filed along with a required fee; and d) the failure to

¹ The '267 application was initially filed in German. Exhibit B is an English language translation.

² The application was abandoned in favor of a continuation-in-part (application 10/137,665, filed May 3, 2002), which eventually issued as U.S. patent 6,825,029.

originally claim priority was unintentional. Applicants have filed the necessary petition herein. Upon its granting, Applicants do not believe that the '322 reference can be used in rejecting claims under § 103. Since this reference is essential to the rejection, Applicants submit that the rejection cannot be maintained and respectfully request that it be withdrawn.

Conclusion

In light of the amendments and discussion above, Applicants believe that all of the Examiner's rejections have been overcome. It is therefore respectfully requested that these rejections be withdrawn and that the claims presently pending in the application be allowed.

If, in the opinion of the Examiner, a phone call may help to expedite the prosecution of this application, the Examiner is invited to call Applicants' undersigned attorney at (202) 419-7013.

Respectfully submitted,

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